



IN THE CLAIMS

Please amend claims 1, 24, 26, 29, 30, 31, 33, 34, 46, 47, 48, 49, 50, 51, and 65 hereby presented in clean form pursuant to 37 C.F.R. 1.121 (c) (1) (i). Another version of the amended claim, marked up to show all the changes relative to the previous version of each respective claim, is provided separate from this amendment pursuant to 37 C.F.R. 1.121 (c) (1) (ii). (See Appendix I).

31 1. (Amended) A fiber optic array switch comprising:

first and second substrates, each substrate comprising:

a front and an opposing rear face, the front faces of each substrate disposed in facing relation to one another;

at least one fiber-retaining channel disposed in each substrate extending from the front face to the rear face; and

at least a first groove disposed along a longitudinal axis within the front face; and

at least one friction reducing element disposed within the first grooves of the first and second substrates, so that the first substrate may translate with respect to the second substrate along the direction of the longitudinal axis of the groove of the first substrate.

32 24. (Amended) The switch according to claim 23 wherein the linear array comprises a basechip having fiber retaining grooves formed therein to provide the channels.

33 26. (Amended) The switch according to claim 24 wherein the linear array comprises a lidchip having fiber retaining grooves formed therein, and wherein the lidchip is positioned opposite to the basechip so that the grooves of said basechip and the grooves of said lidchip are registered relative to one another to provide the channels.

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29. (Amended) The switch according to claim 1 wherein the at least one channel of the first substrate comprises channels disposed in a two-dimensional array of channels.

30. (Amended) The switch according to claim 29 wherein the two-dimensional array of channels comprises linear arrays of channels arranged to provide the two-dimensional array.

31. (Amended) The switch according to claim 30 wherein at least one of the plurality of linear arrays comprises a basechip having fiber retaining grooves formed therein to provide the channels.

33. (Amended) The switch according to claim 32 wherein the linear array comprises a lidchip having fiber retaining grooves formed therein, and wherein the lidchip is positioned relative to the basechip so that the fiber retaining grooves of said basechip and

fiber retaining grooves of said lidchip are registered to one another to provide the channels.

34. (Amended) The switch according to claim 33 wherein at least one of the basechip and the lidchip includes a probe and at least one of the other basechip and lidchip includes a complementary socket for registering the basechip to the lidchip.

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✓ 46. (Amended) The switch according to claim 38 wherein the first groove is dimensioned to match a selected dimension of a roller element so that said roller element is confined within the first groove during relative displacement of the first and second array.

47. (Amended) The switch according to claim 38 wherein the first groove comprises at least one detent dimensioned to temporarily hold a roller element in a certain position within the first groove to permit the first and second array to be aligned relative to each other.

0 48. (Amended) The switch according to claim 47 wherein the first array comprises a plurality of fiber channels arranged in a preselected number of rows of fiber channels, and wherein the number of detents in the first groove matches the preselected number of rows of fiber channels.

0 49. (Amended) The switch according to claim 48 wherein the detents are spaced to match the pitch of the rows of fiber channels.

50. (Amended) The switch according to claim 48 wherein the second array comprises a plurality of fiber channels arranged in a preselected number of rows of fiber channels, and wherein the second groove cooperates with the first groove of the first array and the second groove includes at least one detent, the number of detents in the second groove matches the preselected number of rows of fiber channels in the second array.

0 51. (Amended) The switch according to claim 50 wherein the detents in the second groove are spaced to match the pitch of the rows of fiber channels of the second array, so that locating the roller element in respective detents of the first and second arrays provides registration between respective fiber channels of the first and second arrays.

0 65. (Amended) The switch according to claim 64 wherein the first array comprises a chip having fiber retaining grooves formed therein to provide the channels for holding fibers of a fiber array.